

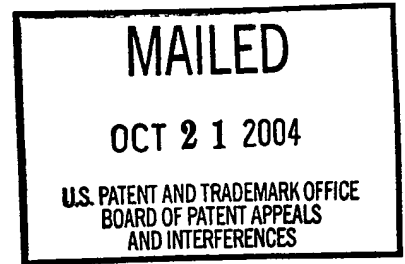
UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

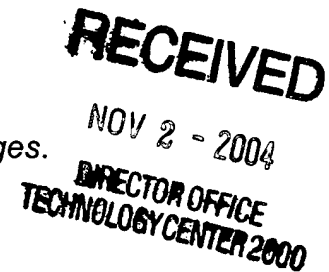
Ex parte MAURICE J.M. CUIJPERS

Appeal No. 2003-1842
Application No. 09/179,290

ON BRIEF



Before FLEMING, DIXON, and BARRY, *Administrative Patent Judges*.
BARRY, *Administrative Patent Judge*.



DECISION ON APPEAL

A patent examiner rejected claims 2-12. The appellant appeals therefrom under 35 U.S.C. § 134(a). We reverse and enter a new ground of rejection.

BACKGROUND

The invention at issue on appeal concerns image compression. (Spec. at 1.) More specifically, a look-up table defines a color value for each pixel in an image. Regions of the image are separated into groups featuring similar color values. For each group, the color of one pixel is selected. The image is compressed by retaining only

references to the look-up table that define the color values of the pixels and a pixel map that indicates, for each pixel, the group to which the pixel belongs. Upon decompression, each pixel is shown with the color of the pixel selected for the group to which the pixel belongs. (*Id.*, *abs.*)

A further understanding of the invention can be achieved by reading the following claim.

2. A method of generating image values of an output image, the method comprising the steps of //

- defining a subdivision of the output image into regions of image locations, //
- providing a color look-up table, //
- providing a respective set of references to the color look-up table for each region, //
- providing a pixel map comprising a selection code for each image location, //
- selecting a particular reference to the color look-up table for a particular image location from the particular set provided for the region to which the particular image location belongs, // by using the selection code as a pointer in that particular set, //
- wherein the pixel map is constructed by grouping the image locations in each region into groups according to a similarity of color values in source image // the selection code identifying the group to which the image location belongs among the groups for the region, //

wherein the color look-up table is provided for the source image, all color values of the source image being in the color look-up table, the reference used for the image locations in a particular group of the pixel map being constructed from at least one reference to the color look-up table which defines the color value in the source image for at least one image location in the particular group,

wherein the reference used for the image locations in the particular group is constructed by selecting a representative image location from the particular group and taking the reference defining the color value for the representative image location in the source image.

Claims 2-12 stand rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 5,825,917 ("Suzuki").

OPINION

Our opinion addresses the claims in the following order:

- claims 2-5
- claims 6 and 7
- claims 8-12.

A. CLAIMS 2-5

Rather than reiterate the positions of the examiner or the appellant *in toto*, we focus on the main point of contention therebetween. "[R]efer[ing] to figure 6, in correlation to column 8, lines 16-25," (Examiner's Answer at 3), the examiner "considers

the transmitter and the receiver to respectively correspond to The Appellant's source and output." (*Id.* at 4.) The appellant argues, "Suzuki does not use the same color table for the source and output image." (Appeal Br. at 5.)

In addressing the point of contention, the Board conducts a two-step analysis. First, we construe the independent claim at issue to determine its scope. Second, we determine whether the construed claim is anticipated.

1. Claim Construction

"Analysis begins with a key legal question — *what is the invention claimed?*"

Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). Here, claim 2 recites in pertinent part the following limitations:

- defining a subdivision of the output image into regions of image locations,
- providing a color look-up table,
- providing a respective set of references to the color look-up table for each region,

...

wherein the color look-up table is provided for the source image, all color values of the source image being in the color look-up table, the reference used for the image locations in a particular group of the pixel map being constructed from at least one reference to the color look-up

table which defines the color value in the source image for at least one image location in the particular group,

wherein the reference used for the image locations in the particular group is constructed by selecting a representative image location from the particular group and taking the reference defining the color value for the representative image location in the source image.

Accordingly, the limitations require using the same color look-up table for a source image and an output image.

2. ANTICIPATION DETERMINATION

"Having construed the claim limitations at issue, we now compare the claims to the prior art to determine if the prior art anticipates those claims." *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349, 64 USPQ2d 1202, 1206 (Fed. Cir. 2002). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (citing *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 USPQ 1264, 1270 (Fed. Cir. 1984); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771, 218 USPQ 781, 789 (Fed. Cir. 1983)). "[A]bsence from the reference of any claimed

element negates anticipation." *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986).

Here, Suzuki discloses "an image processing method for compressing image data in accordance with a color of each portion of an image and to an image communication apparatus for transmitting and receiving image data compressed by the method." Col. 1, ll. 11-14. More specifically, a source "image to be processed is fed through [an] image input section 10. . . ." Col. 5, ll. 43-44. A "space transform section 14 serves to transform this image from the RGB color space to the HVC uniform color space. Besides . . . this transform, the space transform section 14 will divide the post-transform HVC uniform color space into a plurality of regions to prepare a color table. . . ." *Id.* at ll. 47-52. "For instance, the HVC uniform color space is divided for use into forty segments in the directions H, V, and C, respectively. Thus the color space will be divided into $40 \times 40 \times 40 = 64000$ regions. An average color for each region is defined as a color [re]presentative of that region." *Id.* at ll. 52-57. "Using the representative colors as elements, the space transform section 14 creates the color table." *Id.* at ll. 60-61.

An "image replacement section 16 acts to replace the color of each pixel of the image to be processed with any one of color numbers 1 to 64000." Col. 5, ll. 65-67. "The thus obtained image in an intermediate processing state is integrated and compressed by [an] image integration section 18." Col. 6, ll. 16-18. An "image transmitter 30 further includes a color table creation section 36 which creates a **new color table** by extracting color table elements necessary for the representation of the final image after the completion of the region integration by the pixel integration section 18." Col. 7, ll. 29-33 (emphasis added). We view the reference's "final image" as its output image

"The significance and the color table are temporarily stored in a storage section 38 and then transmitted through a transmission section 40 to the image receiver 32. Through a reception section 42, the image receiver 32 receives the data and temporarily stores them in a storage section 44. Afterwards, the data are fed to a reproduction section 46 for reproducing the image." *Id.* at ll. 33-39.

The passage of Suzuki relied on by the examiner teaches "that both the transmitter and receiver can share a color table necessary and sufficient for the reproduction of the image to be transmitted. . . ." Col. 8, ll. 20-22. Although the

transmitter and receiver can share a color table, we are unpersuaded that the same color table is used for the source image and the output image. To the contrary, the reference uses the color table created by the space transform section 14 for its source image while using the color table created by the color table creation section 36 for its final output image.

The absence of using the same color look-up table for a source image and an output image negates anticipation. Therefore, we reverse the anticipation rejection of claim 2 and of claims 3-5, which depend therefrom.

B. CLAIMS 6 AND 7

Under 37 C.F.R. § 41.50(b) (2004), we enter a new ground of rejection against claims 6 and 7. The second paragraph of 35 U.S.C. § 112 requires that a specification conclude "with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." "The test for definiteness is whether one skilled in the art would understand the bounds of the claim when read in light of the specification." *Orthokinetics Inc., v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). Furthermore, "[c]laims in

dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim." 37 C.F.R. § 1.75.

Here, reciting in pertinent part "[a] method according to Claim 1," claim 6 depends from claim 1. Claim 1, however, has been canceled. (Paper No. 18 at 1.) Because it depends on a canceled claim, we are unpersuaded that one skilled in the art would understand the bounds of claim 6 when read in light of the specification. Therefore, we reject claim 6 and claim 7, which depends therefrom, under 35 U.S.C. § 112, ¶ 2.

A rejection should not be based on "speculations and assumptions." *In re Steele*, 305 F.2d 859, 862, 134 USPQ 292, 295 (CCPA 1962). "All words in a claim must be considered in judging the patentability of that claim against the prior art. If no reasonably definite meaning can be ascribed to certain terms in the claim, the subject matter does not become obvious — the claim becomes indefinite." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Here, for the aforementioned reasons, speculations and assumptions would be required to decide the scope of claims 6 and 7. Therefore, we reverse *pro forma* the

anticipation rejection of the claims 6 and 7. We emphasize that our reversal is based on procedure rather than on the merits of the obviousness rejection. The reversal does not mean that we consider the claims to be patentable *vel non* as presently drafted.

C. CLAIMS 8-12

Under § 41.50(b), we enter a new ground of rejection against claims 8-12. A claim is indefinite "where the language 'said lever' appears in a dependent claim where no such 'lever' has been previously recited in a parent claim to that dependent claim" *Ex parte Moelands*, 3 USPQ2d 1474, 1476 (Bd. Pat. App. & Int. 1987).

Here, although claims 8-10 each includes the language "the pixel map," no such "pixel map" has been previously recited therein. Because the claims lack antecedent basis for "the pixel map," we are unpersuaded that one skilled in the art would understand the bounds of claims 8-10 when read in light of the specification. Therefore, we reject claim 8-10 and claims 11 and 12, which depend from claim 10, under 35 U.S.C. § 112, ¶ 2.

For the same reasons, speculations and assumptions would be required to decide the scope of claims 8-12. Therefore, we reverse *pro forma* the anticipation

rejection of the claims 8-12. We again emphasize that our reversal is based on procedure rather than on the merits of the obviousness rejection. The reversal does not mean that we consider the claims to be patentable *vel non* as presently drafted.

CONCLUSION

In summary, the rejection of claims 2-12 under § 102(e) is reversed. A new rejection of claims 6-12 under § 112, ¶ 2, is added. 37 C.F.R. § 41.50(b) (2004) provides that "[a] new grounds of rejection pursuant to this paragraph shall not be considered final for judicial review." Section 41.50(b) also provides that, within two months from the date of the decision, the appellant must exercise one of the following options to avoid termination of proceedings of the rejected claims:


- (1) Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .
- (2) Request that the proceeding be reheard under 37 C.F.R. § 41.52 by the Board upon the same record. . . .

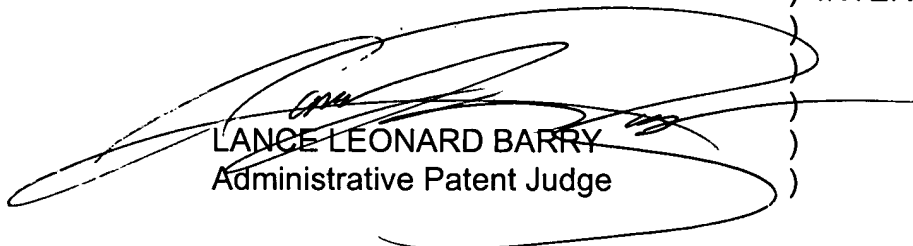
No time for taking any action connected with this appeal may be extended under 37 C.F.R. § 1.136(a).

REVERSED

37 C.F.R. § 41.50(b)


MICHAEL R. FLEMING
Administrative Patent Judge


JOSEPH L. DIXON
Administrative Patent Judge


LANCE LEONARD BARRY
Administrative Patent Judge

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P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510